



1. Project Data:		Date Posted : 07/20/2001	
PROJ ID: P002938		Appraisal	Actual
Project Name: Agric. Res & Trg. Phase I	Project Costs (US\$M)	28.87	32.10
Country: Uganda	Loan/Credit (US\$M)	25	25
Sector(s): Board: RDV - Agricultural extension and research (62%), Central government administration (38%)	Cofinancing (US\$M)		
L/C Number: C2446			
	Board Approval (FY)		92
Partners involved :	Closing Date	12/31/2000	09/30/2000

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2. Project Objectives and Components

a. Objectives

The project's goal was to improve productivity and diversification through transfer of improved agricultural technology. This was to be achieved through developing a sustainable and efficient organizational framework and institutional processes, responsive to constraints facing farmers in Uganda . The implementing agency, the newly established, National Agricultural Research Organization (NARO) comprises 8 institutes, 1 center and a secretariat. The specific objectives were threefold :-

1. Launch and support the key activities of NARO, including priority research .
2. Strengthen the linkages and coordination between research system, extension and the agricultural faculties of the university.
3. Improve agricultural education and training capacity .

b. Components

The components of the total project cost of \$ 32.1 million were: -

- (i) **Institutional Development of NARO (28%)**: funding of secretariat activities, research funding and priority setting, construction of a new HQ, M&E, and provision of equipment .
- (ii) **Rehabilitation of NARO Research Institutes (13%)**: offices, laboratories, equipment, transport and staff housing .
- (iii) **Execution of High Priority Research Programs (42%)**: mainly staff salaries/incremental operating costs .
- (iv) **Strengthening Agricultural Education and Training Capacity (16%)**: support for overseas graduate education, upgrading faculties and establishing a Continuing Agricultural Education Center (CAEC).

c. Comments on Project Cost, Financing and Dates

Cost overruns of \$3.3 million were covered by the Government, exceeding their planned contribution by 84%. Smooth procurement and construction enabled the project to be closed 3 months early.

3. Achievement of Relevant Objectives:

Achievement by components: -

1. The research activities of existing institutes were integrated into a national program coordinated by NARO . Management, administrative, accounting and financial systems were strengthened while the research infrastructure of 4 institutes was rehabilitated and the new CAEC constructed at Makerere University (MAK.) A monitoring and planning unit (MEPU) was established and the process of research funding and priority setting operationalized, although national impact has been constrained by organizational uncertainties and the failure of a key external extension project also funded by IDA .
2. Buildings were rehabilitated for 3 centers and the cost savings sufficient to fund rehabilitation of laboratories at an additional center.
3. Over 50 new varieties were released and demand driven, participatory research planning and implementation methodologies introduced. Responding to major crises a high yielding disease resistant variety of cassava (adoption rate 70%) and higher yield beans (adoption rate 72%) were developed. Contributions were also made to water hyacinth control, new agro-forestry species and the understanding of livestock diseases .
4. Agricultural education and training capacity were increased which is supported by both outputs and inputs - 535

publications, 114 articles, 73 annual reports and 150 Journal articles/research papers/book chapters were produced. 24 NARO and 40 MAK staff received higher degree training (29 PhD and 35 M.Sc.)

4. Significant Outcomes/Impacts:

1. During a time of economic liberalization and tight government finance the Borrower and Bank succeeded in building a sound institutional basis for supporting agricultural research in a country heavily dependent on agriculture. ISNAR (International Service for National Agricultural Research) "regards the process and collaborative efforts of donors, the international agricultural research centers and the Government in establishing NARO a model for other countries to follow."
2. Resolution of the African Cassava Mosaic Disease (ACMD), which had a catastrophic effect on cassava production enabled recovery of the crop so that by 1999 production exceeded pre-epidemic levels ("in terms of lives saved from dying of hunger, the value of the ACMD-resistant varieties introduced cannot be overemphasized.")
3. The project has led to improved understanding of the importance of interaction with farmers and other stakeholders and to looking at the adoption of new varieties within the prevalent context of mixed-cropping.
4. Strong functional relationships between regional and international research institutions and the faculties of MAK were established.
5. NARO was transformed from civil service to semi-autonomous status and is in a good position to recover costs for services and pursue more diverse funding sources, especially from private sector participation.
6. The Project was successful enough to secure its own medium-term sustainability with a follow on Phase II Project.

5. Significant Shortcomings (including non-compliance with safeguard policies):

1. Absence of a clear government policy to attract private sector investment in seed production, which restricted the diffusion of crop varieties released by research.
2. Development of M&E and human resources management capacities were not so satisfactory and the MIS system is still weak. Although baseline indicators were defined they were not measured at appraisal and lack of timely attention to M&E has made it difficult to assess project impact.
3. Fixed asset management and maintenance in general must be improved or progress made in improving facilities will be reversed.
4. Early overcommitment of funds for salary adjustment prevented the introduction of performance incentives and higher market rate salaries needed for recruitment of staff in finance and economics.
5. Geographical concentration of research facilities has resulted in high transport costs and lack of flexibility, while sharing staff resources between Institutes and Programs has reduced efficiency. Fiscal decentralization is channeling more resources to the districts and NARO activities need to be more devolved to take advantage of this additional source of potential co-funding.
6. A Beneficiary Assessment Study indicates that despite high adoption rates a relatively small proportion of adopters have grasped the recommended agronomic practices (the associated crop management practices appear to be ignored by the majority of farmers.) Field extension staff indicated the need for strengthening of farmer/extension/researcher relationships.

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Satisfactory	
Institutional Dev.:	Substantial	Substantial	
Sustainability:	Likely	Unlikely	Current budgetary contributions amount to only 30% and NARO's cost recovery efforts are still at the planning stage.
Bank Performance:	Satisfactory	Satisfactory	
Borrower Perf.:	Satisfactory	Satisfactory	
Quality of ICR:		Satisfactory	

NOTE: ICR rating values flagged with '*' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

1. The yield impact of new varieties will fall far short of potential, unless there are also major improvements in farm management and extension.
2. Demonstration plots should reflect the reality of extensive inter-cropping rather than pure crop stands. Palatability, ease of adopting technology into current cultural practices, and improvement of those practice should be a focus for interventions, not just new varieties ("Researchers need to direct increased resources to improving and promoting integrated soil, water, pest and disease management, that is, farm management.")
3. Focusing research on a few critical production issues (e.g. cassava and water hyacinth) can have a rapid and substantial impact, and may be a more effective use of resources, than dispersing them over a large number of small activities.
4. Financial support should not be dependent on donor and Government support alone. Fund-raising should

become a recognized function of research managers .

8. Assessment Recommended? Yes No

9. Comments on Quality of ICR:

Satisfactory. Value is added by an integral Beneficiary Assessment Study in the Borrower ICR .